I Claims:

1. A transducer for use in a viscoelastic analyzer of the type in which a mechanical probe member is immersed in a fluid or gel whose viscoelastic characteristics are to be determined, the probe member being driven to impart a desired oscillating motion thereto, the improvement comprising means for restricting motion of the probe member in any direction except the direction of the desired oscillating motion.

2. A transducer as in claim 1 wherein said means for restricting motion further comprises mechanical stop means for limiting deflection of the probe member in the direction of the desired oscillating motion.

3. A transducer as in claim 1 wherein the probe member comprises a disposable component and a non-disposable component.

4. A transducer as in claim 1 wherein the means for restricting motion comprises a circular spring assembly coupled to the probe member for restricting motion of the probe member in all directions except along the axis of the probe member.

5. A transducer as in claim 4 wherein the circular spring assembly comprises a pair of circular springs spaced apart from each other and coaxially coupled at their peripheral edges to a circular ring.

6. A transducer as in claim 5, wherein each of the circular springs compises a beryllium copper circular ring.

7. A transducer for use in a viscoelastic analyzer of the type in which a mechanical probe member is immersed in a fluid or gel whose viscoelastic characteristics are to be determined, the probe member being driven to impart a desired oscillating motion thereto, the improvement comprising stop means for limiting deflection of the probe member in the direction of the desired oscillating motion.

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8. A transducer as in claim 7 wherein the probe member comprises a disposable component and a non-disposable component.

9. A transducer as in claim 7 wherein the stop means comprises a combination of a cover member and a magnet.

10. A transducer as in claim 2 wherein the stop means comprises a combination of a cover member and a magnet.